

REMARKS

Reconsideration and withdrawal of the rejections made in the instant Office Action are respectfully requested, in view of the foregoing amendments and the following remarks.

Summary of Amendments

By the foregoing amendments claims 10, 25 and 28 are amended. Claims 10, 12-15, 18, 24-29, 31 and 32 remain pending in the present application, with claims 10, 25 and 28 being independent claims. Support for the amended claims can be found throughout the present specification and, in particular, at page 9 of the present application.

It is noted that the present amendments are without prejudice or disclaimer, and Applicant expressly reserves the right to prosecute the subject matter of the unamended claims in one or more divisional and/or continuation applications.

Summary of Office Action

Initially, it is noted with appreciation that the finality of the previous Office Action has been withdrawn.

It is also noted with appreciation that the objection to claim 32 under 37 C.F.R. § 1.75(c) has been withdrawn.

Claims 10, 12-15, 25 and 28 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by an article by van BOCHOVE in Wegen, vol. 64, no. 6, June 1990, pp. 30-31 (hereafter “BOCHOVE”).

Claims 18, 24, and 29 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BOCHOVE in view of HENDRIKS et al. (U.S. Patent No. 5,910,212).

Claims 26 and 27 continue to be rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BOCHOVE in view of KIM et al. (U.S. Patent No. 5,432,213).

Claims 10, 12-15, 18, 24, 25, 28, 31 and 32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BOCHOVE in view of BREDAEL, EP 0605377 A2.

Response to Office Action

Reconsideration and withdrawal of the rejections of record are respectfully requested.

Response to Rejection of Claims 10-15, 25 and 28 under 35 U.S.C. § 102(b) over BOCHOVE

Claims 10, 12-15, 25 and 28 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by BOCHOVE. The rejection essentially asserts that BOCHOVE discloses all of the elements of claim 10 with the exception of the

amount of filler material in the upper layer. In this regard, the Office Action continues to assert that the sand fraction of the aggregate mixture of BOCHOVE qualifies as the filler material recited in the present claims and contends that since BOCHOVE discloses that the sand fraction can be omitted in order to affect the porosity of the upper layer, the sand fraction must be present in an amount of greater than 2 % by weight since otherwise the omission of the same would allegedly not have any effect on the porosity of the upper layer.

With respect to claims 12-15, 25 and 28, the rejection essentially asserts that according to BOCHOVE, the second particle size can be in the range of 11/16 mm or 16/22 mm and can consist of broken stone, gravel and/or crushed rock, and that the first particle size can be in the range from 4/8 mm; and either or both layers can have a single-grained mixture, which allegedly “inherently requires 95 % of the aggregate to be of a single grain size”.

This rejection is respectfully traversed. In particular, with regard to the rejection of the independent claims, the rejection continues to assert that the “sand” mentioned in BOCHOVE qualifies as the “filler material” recited in the rejected claims. Even if one were to accept this assertion, *arguendo*, the present amended claims would not be anticipated by BOCHOVE. Specifically, the amended independent claims submitted herewith recite a “filler material passing through an 80 µm mesh sieve”. According to the present Office Action, page 9, second paragraph, “sand is well known to have a particle size of 0.425 mm-

2.0mm". Accordingly, if sand has a particle size of at least 0.425 mm (= 425 μ m), the sand of BOCHOVE has a (significantly) larger particle size than the filler material recited in the present claims. For this reason alone, BOCHOVE does not anticipate any of the claimed subject matter.

Furthermore, with regard to the allegation that BOCHOVE inherently discloses at least 2 % by weight of sand ("filler"), it is not seen why in order to affect the porosity of the upper layer, the sand of BOCHOVE must necessarily be present in an amount of at least 2 % by weight. It would appear that any non-negligible amount of sand (e.g., 1 % by weight, or 0.5 % by weight, or even less) will have an effect on the porosity of the upper layer. Also, there appears to be no other indication in BOCHOVE which would support a presumption that the sand of BOCHOVE is present in amounts of at least 2 % by weight. Thus, even if the sand of BOCHOVE were assumed to qualify as the filler material recited in the present claims (which it clearly is not), this is yet another reason why the rejection of claims 10, 12-15, 25 and 28 under 35 U.S.C. § 102(b) over BOCHOVE is unwarranted and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims 18, 24 and 29 under 35 U.S.C. § 103(a) over BOCHOVE in view of HENDRIKS et al.

Claims 18, 24, and 29 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BOCHOVE in view of HENDRIKS et al. The rejection acknowledges that BOCHOVE fails to disclose the void ratio of the Very Open

Asphalt, but alleges that HENDRIKS et al. discloses an open graded asphalt composition having a void content ranging between 20-30 % and that the open graded asphalt can be applied at a temperature of less than 140 °C. The Office Action asserts that it would allegedly have been obvious to one of ordinary skill in the art to provide the water permeable roadway of BOCHOVE with a void content in the range of 20-30 % in order to maximize the water draining characteristics of the roadway.

Applicant notes that the rejection of dependent claims 18, 24 and 29 under 35 U.S.C. § 103(a) is based on a combination of the teachings of BOCHOVE and HENDRIKS et al. As discussed above with regard to the rejection of claims 10, 12-15, 25 and 28, none of the present independent claims is anticipated by BOCHOVE. HENDRIKS et al. does not cure the deficiencies of BOCHOVE set forth above. Accordingly, even a combination of BOCHOVE and HENDRIKS et al. does not result in the claimed subject matter. In view thereof, withdrawal of the rejection of dependent claims 18, 24 and 29 under 35 U.S.C. § 103(a) over BOCHOVE and HENDRIKS et al. is warranted and respectfully requested.

Response to Rejection of Claims 26 and 27 under 35 U.S.C. § 103(a) over BOCHOVE in view of KIM et al.

Dependent claims 26 and 27 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BOCHOVE in view of KIM et al. The Office Action acknowledges that BOCHOVE fails to disclose the preferred thickness for

each of the layers of the roadway, and only teaches that the theoretical maximum thickness is not necessary. In this regard, the rejection alleges that KIM et al. teaches that water-permeable asphalts can be formed in preformed blocks of multiple layers, or in continuous, multiple stacked layers wherein the top layer can have a thickness of 0.05-3 cm and the lower layer can have a thickness of 0.55-5 cm in order to balance the competing needs of strength and porosity. The rejection further asserts that it would allegedly have been obvious to one of ordinary skill in the art to make the roadway of BOCHOVE in layers greater than 0.5 mm and less than 4 cm thick, in order to provide sufficient strength, in very open concrete mixtures (without supporting this allegation by any publication).

Applicant notes that regarding the thickness ranges recited in claims 26 and 27, the rejection apparently relies on disclosure of KIM et al. which relates to the road blocks for footpaths as illustrated in Fig. 1 of this document, whereas the resinous pavement which is illustrated in Fig. 2 of this document and which would appear to be more closely related to the road blanket of BOCHOVE than the roadblocks of Fig. 1, has thickness ranges of 3-5 cm and 5-20 cm, respectively, i.e., completely outside the ranges recited in claims 26 and 27 (1.5-2 cm and 2.5-4 cm, respectively). It is not seen that one of ordinary skill in the art would supplement the missing thickness ranges for the road blanket of BOCHOVE by taking the thickness ranges from KIM et al. which do not relate to a similar road blanket (i.e., the resinous pavement illustrated in Fig. 2), but to road blocks for footpaths. Applicant notes that at page 12, last full paragraph, the Office Action

refers to col. 4, lines 19-35 of KIM et al. However, this very passage refers to roadblocks for footpaths, not to a road blanket like that of BOCHOVE. Accordingly, a combination of the teachings of BOCHOVE and KIM et al. would not result in the subject matter of claims 26 and 27 for the above-stated reasons alone.

Further, as set forth above, BOCHOVE does not anticipate any of the present independent claims. KIM et al. does not disclose or suggest any of the missing features of BOCHOVE, wherefore a combination of these two documents does not support a rejection of any of the present claims, including dependent claims 26 and 27. This is yet another reason why the rejection of claims 26 and 27 under 35 U.S.C. § 103(a) is unwarranted and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims 10, 12-15, 18, 24, 25, 31 and 32 under 35 U.S.C. § 103(a) over BOCHOVE in view of BREDAEL

Claims 10, 12-15, 18, 24, 25, 31 and 32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BOCHOVE in view of BREDAEL. The Office Action acknowledges that BOCHOVE does not disclose the constituent amount of filler material in the mixture (Applicant agrees, but notes that this position is inconsistent with the position taken by the Examiner with respect to the rejection of claims 10, 12-15, 25 and 28 under 35 U.S.C. § 102(b) over BOCHOVE). However, the rejection asserts that BREDAEL “teaches a

surface draining layer having a granular material in the range 6/17 mm and 0.08/2 mm, such as fly ash and a modified bituminous binder, such as SBS and an additional 3-8 % by weight of filler material having a particle size of less than 0.08 mm". According to the rejection, it would allegedly have been obvious to one of ordinary skill in the art to provide the asphalt of BOCHOVE with a quantity of filler material in the range of 3-8 % by weight and SBS, as allegedly taught by BREDAEL, in order to reduce road noise.

In regard to claims 18 and 24, the rejection acknowledges that BOCHOVE does not disclose the void ratio of the asphalt composition, but asserts that BREDAEL teaches that corresponding asphalt compositions desirably have a void content between 15-30 % and that the modified bituminous binder is added in the range of 2-7 % by weight, wherefore it would allegedly have been obvious to provide the asphalt of BOCHOVE with a void content of at least 25 % and a bituminous binder in an amount greater than 4 % by weight in order to prevent pooling of surface water on the roadway.

Applicant respectfully traverses this rejection. In particular, there is no motivation to combine the teachings of BOCHOVE and BREDAEL since one of ordinary skill in the art will recognize that these documents relate to conceptually entirely different types of road blankets, i.e., to a two-layer structure on the one hand (BOCHOVE) and a single-layer structure on the other hand (BREDAEL). This difference in structure manifests itself in various other differences. For example, the "mineral skeleton" of BREDAEL consists of a predominant portion

(at least 79 % by weight) of grain size 6/17, at least 9 % by weight of (sand) grain size 0.08/2 and at least 3 % by weight of fill material of grain size below 0.08 (see, e.g., claim 1 of BREDAEL). In comparison, the total two-layer road blanket of BOCHOVE features an undisclosed amount of single-grained crushed rock of e.g. 11/16 or 16/22 in the lower layer and an undisclosed amount of e.g., small stones 4/8 in the upper layer (see, e.g., page 5, last paragraph of the English language translation of BOCHOVE). The two-layered structure of BOCHOVE does not appear to contain any (mineral) material of a grain size of less than 4 mm, let alone as a mandatory component and in a substantial amount, as in the case of BREDAEL. Even if one were to assume, *arguendo*, that the “sand fraction” referred to in BOCHOVE is not included in the 4/8 grain size, it is pointed out that BOCHOVE clearly teaches against the use of the sand fraction.

Specifically, according to page 7, second paragraph, of the English language translation of BOCHOVE, “[g]iven the fine grain-size of the upper layer mixture, it is advisable to keep the porosity as high as possible, and the resistance to flow – as low as possible. This can be achieved by omitting the sand fraction in the mixture”. BOCHOVE recognizes that omitting the sand fraction may cause a problem with respect to the deterioration of the mineral structure, but notes that this problem can be overcome (“compensated”) by the “improved binding agent” (page 7, fourth paragraph, of the English language translation of BOCHOVE), i.e., (probably) the “rubberized asphalt” mentioned in the immediately following paragraph. Accordingly, as far as the sand fraction (or any fraction having a

particle size significantly below 4 mm) is concerned, the teachings of BOCHOVE and BREDAEL cannot be reconciled, particularly, because BOCHOVE discourages the use of a sand fraction, whereas BREDAEL specifically requires the presence of a substantial portion of small-grained (mineral) material, i.e., a combined total of at least 12 % by weight of sand and inert fill material. In this regard, it is further pointed out that BOCHOVE, although referring to a “sand fraction”, is completely silent as regards an additional “fill material”.

Moreover, BREDAEL provides evidence that one of ordinary skill in the art would not consider sand to be the same as an inert filler material, which is consistent with Applicant’s position that the sand fraction of BOCHOVE does not qualify as the filler material recited in the present claims and for this reason alone, does not anticipate any of the present claims, not even if they had not been amended to recite the mesh sieve size.

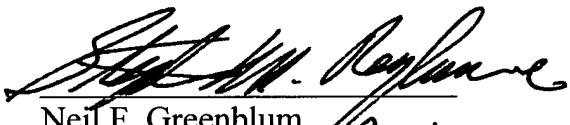
Since the rejection of the claims over BOCHOVE in view of BREDAEL is clearly unjustified already for the reasons set forth above, there appears to be no need to comment on any of the Examiner’s further allegations in this regard. However, Applicant’s silence with respect to these allegations is not to be construed as Applicant’s admission that any of these allegations are meritorious.

To sum up, for at least the reasons set forth above, none of the rejected claims is rendered obvious by BOCHOVE in view of BREDAEL. Accordingly, withdrawal of the rejection of claims 10, 12-15, 18, 24, 25, 31 and 32 under 35 U.S.C. § 103(a) is warranted and respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,
Jean-Paul MICHAUT


Neil F. Greenblum
Reg. No. 28,394
Reg. No.
31,096

July 30, 2004
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191